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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/583,171

05/30/2000

Teruhisa Tsuru

P/1071-993

1225

7590

06/17/2004

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EXAMINER

GLENN, KIMBERLY E

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n N .

09/583,171

Applicant(s)

TSURU ET AL.

Examiner

Kimberly E Glenn

Art Unit

2817

-- The MAILING DATE of this c mmunication appears n th c ver sh et with the c rrespondence address --  
Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 4-6-04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 9-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickernell US Patent 6,201,457 (of record) in view of Kono US Patent 5,929,722.

Hickernell disclose in figure 2 a notch filter comprising a delay line 26, a capacitor 24 connected in parallel with the delay line 26. Hickernell also state that the notch filter can be realized in a ceramic substrate. Inherently the capacitance of the capacitance will effect the delay time of the delay line.

Hickernell is shown to teach all the limitations of the claims with the exceptions of the capacitor being adjustable or a variable capacitor or a varicap diode, a multilayered structure formed comprised a plurality of dielectric layers, a plurality of ground conductors disposed on the dielectric layers and a pair of ground conductors disposed opposite the transmission line and the capacitance being provided by electrodes formed on the dielectric layers.

Kono discloses in figure 4A – 4C a conventional low-pass filter<sup>25</sup> comprises a parallel circuit of a coil L1 and a capacitor C1 inserted between an input terminal P1 and an output terminal P2. Figure 4B, show the input terminal P1, the output terminal P2, and ground terminals G are placed on the side faces of a laminate chip 30 containing

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the coil L1 and the capacitors C1-C3. The laminate chip comprises a dielectric layer 1a on which a ground electrode 2a is printed, a dielectric layer 1b on which capacitor electrodes 3a and 3b forming the capacitors C2 and C3 together with the ground electrode 2a are printed, a dielectric layer 1c on which a capacitor electrode 3c forming the capacitor C1 together with the capacitor electrodes 3a and 3b is printed, a plurality of dielectric layers 1d forming a gap layer, a dielectric layer 1a on which a coil 4a forming a part of the coil L1 is printed and a dielectric layer 1f on which a coil 4b of the remaining part of the coil L1 is printed.

One of ordinary skill in the art at the time of the invention would have found it obvious to substitute the general ceramic structure of Hickernell with the detailed multilayer structure of Kono since examiner takes notice of the equivalence of the general ceramic structure and the multilayered structure for their use in the transmission line art and the selection of any of these known equivalent would be within the level of ordinary skill in the art.

One skill in the art would have found to obvious to make the capacitor adjustable in order to adjust the frequency of the notch filter. The adjustable capacitor can be realized through the use of a variable capacitor or varicap diode.

### ***Response to Arguments***

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

keg

Kimberly E Glenn  
Examiner  
Art Unit 2817

  
BENNY T. LEE  
PRIMARY EXAMINER  
ART UNIT 2817